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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,289	01/26/2004	Tetsuya Shirogane	16869N-103900US	2560

20350 7590 04/18/2007 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834	**EXAMINER** MORAN, RANDAL D

ART UNIT	PAPER NUMBER
2135	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/765,289	SHIROGANE, TETSUYA
	Examiner	Art Unit	
	Randal D. Moran	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 20-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 20-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *1/26/2004 and 3/21/2005*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   The Information Disclosure Statements filed on 1/26/2004 and 3/21/2005 have

been considered by the examiner.

2.   The preliminary amendments filed on 3/1/2005 and 7/5/2005 have been

considered by the examiner.

3.   Claims 17-19 have been cancelled by the applicant in preliminary amendment

dated 7/5/2005. Claims 1-16, 20-22 are pending in this application.

4.   Below, Examiner has pointed out particular references contained in the prior

art(s) of record in the body of this action for the convenience of the applicant. Although

the specified citations are representative of the teachings in the art and are applied to

the specific limitations within the individual claims, other passages and figures may

apply as well. Applicant should consider the entire prior art as applicable as to the

limitations of the claims. It is respectfully requested from the applicant, in preparing the

response, to consider fully each reference in its entirety as potentially teaching all or

part of the claimed invention, as well as the context of the passage as taught by the

prior arts or disclosed by the examiner.

Claim Objections

5.   **Claims 1, 6, and 7** are objected to for lack of antecedent basis.

- **Claim 1**- line 20, recites the limitation "the determination result". There is insufficient antecedent basis for this limitation in the claim.

- **Claims 6 and 7**- lines 1-2, recite the limitation "the determination result". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7.   **Claims 1-9, 16, and 22** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8.   Considering **Claims 1**- lines 16-18, **and 22**- lines 16-20, it is unclear in the limitation "a second determination means...by examination of said access management table" if the "*examination*" occurs between the "*first information transmitted by said host computer in response to the request issued*" and the "*access management table*". Or in the alternative, if the "*examination of said*

access management table" causes the "request" to be "issued by said request

means". For the purposes of examination, the examiner will use the alternative.

9.   Considering **Claim 9**- lines 1-4, it is unclear in the limitation "said access

management table...with the MAC address" how the "access management table

is used for storing an IP address" when "first information...is an MAC address"

(claim 3- line 2) which is stored in "an access management table" (claim 1- lines

6-7).

10.   Considering **Claim 16**- lines 9-11, the limitation "with regard to processing of said

command in a third determination process after said second determination

process" is unclear.

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

12.   **Claims 1-16 and 20-22** are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Grosner et al. (US 2004/0044744)**, hereafter "Grosner" in view of

Davis et al. (US 6,088,450), hereafter "Davis".

13.   Grosner was presented by applicant in an IDS filed on 3/21/2005.

14.   Considering **Claim 1, 10, and 22,** Grosner discloses a storage apparatus for

processing a command transmitted by a host computer connected to said

storage apparatus by a network, said storage apparatus comprising: a storage

unit for storing data to be processed in accordance with said command; a

memory for holding an access management table for storing first information on

identification of said host computer; and a second determination means for

carrying out a determination process on the first information transmitted by said

host computer in response to the request issued by said request means by

examination of said access management table; wherein a decision as to whether

or not to approve the login request is made in accordance with the determination

result output by said second determination means (abstract, [0017]-[0024],

[0074]-[0081], [0213]-[0216], as provided by the applicant in petition to make

special on 7/5/2005).

Grosner does not disclose a first determination means for determining whether or

not a frame of a login request transmitted by said host computer includes second

information on identification of said host computer; a request means for transmitting a request to a source address specified in the frame of the login request in order to request said host computer to transmit the first information on identification of said host computer in a case where the determination result output by said first determination means indicates that the frame of the login request does not include the desired second information.

Davis does disclose a first determination means for determining whether or not a frame of a login request transmitted by said host computer includes second information on identification of said host computer (Fig. 5- item 400-410, column 6- lines 13-25, the security device would request a password (first information) and upon receiving the password, no second information is available); a request means for transmitting a request to a source address specified in the frame of the login request (Fig. 5- item 415, column 6- lines 26-29) in order to request said host computer to transmit the first information on identification of said host computer in a case where the determination result output by said first determination means indicates that the frame of the login request does not include the desired second information (Fig. 5- item 415-435, column 6- lines 29-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grosner by a challenge-response

protocol for authentication as taught by Davis in order to increase the security of

the authentication process. A challenge response protocol mitigates the

likelihood of unatuthorized use of an electronic device through periodic

challenge/response messages (Davis- column 1- lines 24-29). The challenge-

response type of authentication is suggested in Grosner, though not taught in

detail ([0264], [0459]).

15. Considering **Claim 20,** Grosner discloses a command-processing method for

carrying out a communication between a first apparatus having an iSCSI initiator

and a second apparatus having an iSCSI target through an IP network, said

command-processing method comprising: receiving a frame of a login request

made by said first apparatus in said second apparatus; checking whether or not

an access made by said first apparatus is to be permitted by examination of said

second predetermined information transmitted by said first apparatus to said

second apparatus; and processing a command transmitted by said first

apparatus to said second apparatus in said iSCSI target of said second

apparatus in a case where a result of checking indicates that an access made by

said first apparatus as an access to said second (abstract, [0017]-[0024], [0074]-

[0081], [0213]-[0216], as provided by the applicant in petition to make special on

7/5/2005).

Grosner does not disclose checking whether or not said frame includes first

predetermined information for identifying said first apparatus; issuing a request

from said second apparatus for acquisition of second predetermined information

for identifying said first apparatus from said first apparatus in a case where said

frame does not include said first predetermined information.

Davis does disclose checking whether or not said frame includes first

predetermined information for identifying said first apparatus (Fig. 5- item 400-

410, column 6- lines 13-25, the security device would request a password

(second information) and upon receiving the password, no second information is

available); issuing a request from said second apparatus for acquisition of

second predetermined information for identifying said first apparatus from said

first apparatus in a case where said frame does not include said first

predetermined information (Fig. 5- item 415-435, column 6- lines 26-50).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify Grosner by a challenge-response

protocol for authentication into a storage unit as taught by Davis in order to

increase the security of the authentication process. A challenge response

protocol mitigates the likelihood of unauthorized use of an electronic device

through periodic challenge/response messages (Davis- column 1- lines 24-29).

The challenge-response type of authentication is suggested in Grosner, though

not taught in detail (Grosner- [0264], [0459]).

16.   Considering **Claim 2,** the combination of Grosner and Davis discloses an access

is made to said storage unit by adoption of an iSCSI protocol (Grosner- Fig. 8-

item 804, [0818] lines 7-10).

17.   Considering **Claim 3 and 11,** the combination of Grosner and Davis discloses

the first information stored in said access management table is an MAC address

of an interface with an IP network through which said host computer is connected

to said storage apparatus and an IP address is used as the second information

([0459]).

18.   Considering **Claims 4, 14, and 21,** the combination of Grosner and Davis

discloses storage apparatus further having an SNMP manager for monitoring an

apparatus connected to said IP network, and wherein said SNMP manager

transmits a frame, which is used for requesting said host computer to transmit

the first information, as an SNMP request for requesting said host computer to

transmit an MIB of an interface related to said host computer (Fig. 33, [0024],

[0092] lines 19-20, [0575]).

19. Considering **Claim 5,** the combination of Grosner and Davis discloses a console

used for changing a content of said access management table ([0132], [0428]-

[0429], changing the configuration of the IP subnet masks with change the

contents that are added to the table, [0541], Fig. 32, [0582], [0583])).

20. Considering **Claims 6 and 13,** the combination of Grosner and Davis discloses if

the determination result produced by said second determination means indicates

that the first information for identifying said host computer is not stored in said

access management table, a content of said login request is stored in said

memory as log data ([0512], [0518]-[0536]).

21. Considering **Claim 7,** the combination of Grosner and Davis discloses if the

determination result produced by said second determination means indicates that

the first information for identifying said host computer has been stored in said

access management table ([0459]- lines 1-6), a source IP address of the login

request is stored in said access management table, being associated with said

information for identifying said host computer ([0459] lines 6-12).

22. Considering **Claim 8,** the combination of Grosner and Davis discloses access

management table is used for cataloging a MAC address and an identification

code for identifying a logical unit (LU) accessible to a host computer having an

IP-network interface identified by the MAC address ([0188], [0189]); and prior to

processing of a command received from said host computer, an access

requested by the command is examined to determine whether or not the access

is an access to an accessible logical unit and the command is processed only if

the access is found out to be an access to an accessible logical unit

([0208],[0209]).

23.   Considering **Claim 9,** the combination of Grosner and Davis discloses access

management table is used for storing an IP address assigned to a host computer

having an IP-network interface identified by a MAC address as an address

associated with the MAC address ([0459]).

24.   Considering **Claim 12,** the combination of Grosner and Davis discloses preparing

a table, which is used for cataloging first information for identifying an external

apparatus allowed to make accesses to said storage apparatus ([0457]);

wherein, in said second determination process, first information acquired from an

external apparatus is checked by referencing said table in determination of

whether or not an access permit should be given to said external apparatus

([0457], [0459]).

25.   Considering **Claim 15,** the combination of Grosner and Davis discloses a MAC

address is obtained from said external apparatus by adoption of a protocol based

on an iSCSI text mode negotiation ([0090]- lines 6-13, [0459]).

26.   Considering **Claim 16,** the combination of Grosner and Davis discloses defining

a plurality of logical units (LUs) in said storage apparatus ([0455]); preparing an

access management table for storing a MAC address and an identification code

for identifying one of said logical units, which is accessible to an external

apparatus having an IP-network interface identified by said MAC address

([0459]); and determining whether or not an access requested by a command

transmitted by an external apparatus is an access to a specific one of said logical

units, which has an identification code cataloged in advance in said access

management table ([0457], [0458]), with regard to processing of said command

in a third determination process after said second determination process;

wherein said command is processed if a result of said third determination

process indicates that said access requested by said command is an access to

said specific accessible logical unit ([0457], [0458] accessing the webpage would

be executing the command).

Conclusion

27.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

   - US 2003/0009444 – Secured Shared Storage Architecture
   - US 6034618 – Device Authentication

28.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Randal D. Moran whose telephone number is 571-270-

1255. The examiner can normally be reached on M-F: 7:00 - 4:00.
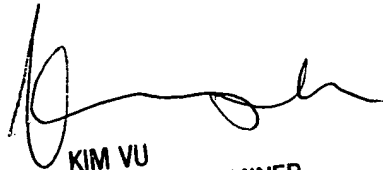
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Randal D. Moran
R.D.M
4/5/07

KIM VU
SUPERVISORY PATENT EXAMINER
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